

Holmes County, Florida Nontechnical Soil Descriptions



Nontechnical soil descriptions describe soil properties or management considerations specific to a soil map unit or group of map units. These descriptions are written in terminology that nontechnical users of soil survey information can understand and are used to create reports. By linking the description to the soil survey map units these reports can be generated by conservation planners and other NRCS employees for distribution to land users. These descriptions are available through both Toolkit and NASIS.

In this subsection nontechnical descriptions are available through four categories they are Agronomic, Ecological Community, Urban, and Water Quality. Separate map unit to description links are provided for each category.

AGRONOMIC

The following agronomic categories are available and linked through the Land Capability Unit (LCU) that are listed below.

Category

aSOI - Soil Characteristics
bSAC - Soil Agronomic Characteristics
cH2O - Seasonal High Water Table
dCUL - Cultivation Limitations
eERO - Erosion Control
fIRR - Irrigation Needs
hPAS - Pasture and Hayland
iWMG - Water Table Management

<u>Map Symbol</u>	<u>Non hydric LCU</u>	<u>Hydric LCU</u>	<u>Drained LCU</u>	<u>Undrained LCU</u>
Ab	3w7			
An	3e3			
Ar	2w2	5w6		
Bb	3w4	5w6		
BoC	3s4			
Ch	3s5			
DoA	1o2			
DoB	2e2			

<u>Map Symbol</u>	<u>Non hydric LCU</u>	<u>Hydric LCU</u>	<u>Drained LCU</u>	<u>Undrained LCU</u>
DoC	3e2			
Dt	4e2			
FcB	3e1			
FcC	4e1			
FuC	3s2			
GrB	3e3			
GrC	4e8			
Ke	2s1			
Ld	4s7			
Le	2w4			
LuC	3s1			
Md	2e1			
OrB	2e1			
OrC	3e1			
Pa	4w4	4w23		
Pg		6w3		6w3
Pm	4w7	4w26		4w26
StA	2s3			
TfB	2e2			
TfC	3e2			
TrC	3s20			

Map Units without an LCU listed are either not suited to these uses or suitability is so variable that it must be determined on-site.

ECOLOGICAL COMMUNITY

kRNG - Rangeland (not developed, no significant application in the area served by this field office.)

IWLD - Wildlife Suitability

mWOD - Woodland Suitability

EC 4 (Longleaf Pine-Turkey Oak Hills) - Map Units: BoC, Ld, TrC

EC 5 (Mixed Hardwood and Pines) - Map Units: Ab, An, Ar, Ch, DoA, DoB, DoC, Dt, FcB, FcC, FuC, GrB, GrC, Ke, Le, LuC, Md, OrB, OrC, StA, TfB, TfC

EC 17 (Cypress Swamp) - Map Units: Pg*

EC 20 (Bottomland Hardwoods) - Map Units: Bb

EC 21 (Swamp Hardwoods) - Map Units: Pa, Pg*, Pm*

EC 23 (Pitcher Plant Bogs) - Map Units: Pm*

* - These Map Units have more than one type of Ecological Community.

Map Units without an Ecological Community listed are not suited to these uses or suitability is so variable that it must be determined on-site.

URBAN USES

The following additional nontechnical descriptions are available for urban interpretations:

oURB - Urban Use Statement

A101 - Map Units - Bb, Pa, Pg, and Pm

A102 - Map Units - Ab, Ar, and Le

A103 - Map Units - An, FcB, FcC, GrB, and GrC

A104 - Map Units - Ch, DoA, DoB, DoC, Dt, StA, TfB, and TfC

A105 - Map Units - BoC, FuC, Ke, Ld, LuC, Md, OrB, OrC, and TrC

Map units without a link listed are either not suited to these uses or suitability is so variable that it must be determined on-site.

WATER QUALITY

The last group of nontechnical description in this subsection of this FOTG is that group dealing with water quality, specifically pesticide and nutrient management. The link between the statements and the map units is listed below.

sWQ – Water Quality Statement

tPES – Pesticide Management Statement

uNUT – Nutrient Management Statement

01 - Map Units - FuC

02 - Map Units - BoC, Ld, LuC, TrC

03 - Map Units - Ab, Bb, Ch, Dt (Troup part), FcB, FcC, Md, OrB, OrC, Pa, Pg, StA

04 - Map Units - An, Ar, DoA, DoB, DoC, Dt (Dothan-Lucy part), Le, GrB, GrC, Ke, TfB, TfC

Nontechnical Soil Descriptions

1o2 Map Units DoA

"aSOI", "1o2", "This map unit consists of nearly level, well drained soils on uplands. They have sandy surface layers less than 20 inches thick, and moderately slowly permeable loamy subsoil layers. These soils are prime farmland."

"bSAC", "1o2", "The root zone is restricted by a compact subsoil and by slight wetness in wet seasons. These soils have moderate natural fertility and crops respond well to fertilization. The available water capacity averages moderate to high in the root zone. Rainfall is readily absorbed and retained by the soils. Runoff during rains is slow and the hazard of erosion is slight."

"cH2O", "1o2", "In normal years these soils have a seasonal high water table at a depth of between 36 and 48 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only briefly during periods of high rainfall, is the water table above the normal seasonal high water table depth."

"dCUL", "1o2", "These soils have few limitations for growing cultivated crops. The variety of cultivated crops is somewhat limited by wetness. Such crops as corn, soybeans, and peanuts grow well without special conservation practices. Practices such as good seedbed preparation, nutrient management, and crop rotations are all that are needed to keep the soil in good condition. Cover crops should be alternated with row crops. All crop residues should be returned to the soil."

"eERO", "1o2", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "1o2", "Crops produced are not normally irrigated."

"hPAS", "1o2", "These soils are well suited to pastures and hay crops. Pasture grasses such as hybrid bermudagrass and improved bahiagrasses are well adapted. Clovers and other legumes are also adapted. Grasses and clovers grow well where they are properly managed. They require nutrient management and controlled grazing to maintain vigorous plants for highest yields and good soil cover."

"iWMG", "1o2", "Water table management is not needed on these soils."

2e1 Map Units Md,OrB

"aSOI", "2e1", "This map unit consists of gently sloping, well drained soils of the uplands. They have sandy or loamy surface layers less than 20 inches thick, and moderately permeable, loamy or clayey subsoil layers. These soils are prime farmland."

"bSAC", "2e1", "These soils have a well aerated root zone more than 60 inches thick. The available water capacity averages moderate to high in the root zone. These soils have moderate natural fertility and crops respond well to fertilization. Rainfall is readily absorbed and retained in the soil. Runoff during rain is moderate to rapid on unprotected areas and the erosion hazard is moderate."

"cH2O", "2e1", "In normal years these soils have no seasonal high water table within 72 inches."

"dCUL", "2e1", "These soils have moderate limitations for growing cultivated crops because of the hazard of erosion. A wide variety of cultivated crops is well adapted. Such crops as corn and soybeans grow well where properly managed. Moderate erosion control measures are needed. Maximum yields require good seed-soil contact, fertilizing, and liming. Nutrient management maximize yields."

"eERO", "2e1", "Moderate erosion control measures are needed on these soils. These include a system of well-designed terraces with stabilized outlets and contour cultivation of row crops in alternate strips with cover crops. Crop rotations are needed that include cover crops at least half the time. Soil-Improving cover crops and all crop residues should be left on the soil. Conservation tillage or no-till best protect the soil."

"fIRR", "2e1", "Crops produced on these soils are not normally irrigated."

"hPAS", "2e1", "These soils are well suited to pastures and hay crops. Pasture grasses such as hybrid bermudagrass and the improved bahiagrasses are well adapted. Clovers and other legumes are also adapted. They grow well where properly managed. They require nutrient management and controlled grazing to maintain vigorous plants for highest yields and good soil cover."

"iWMG", "2e1", "Water table management is not normally practiced on these soils."

2e2 Map Units DoB,TfB

"aSOI", "2e2", "This map unit consists of gently sloping, well drained to moderately well drained soils on uplands. They have sandy or loamy surface layers less than 20 inches thick, and moderately slowly permeable loamy subsoil layers. These soils are prime farmland."

"bSAC", "2e2", "These soils have a root zone that is somewhat restricted by a compact subsoil and by slight wetness in wet seasons. The available water capacity in the root zone averages moderate. Natural fertility is low but crops respond moderately well to fertilization. The internal drainage rate is slow under natural conditions. Runoff during rains is moderate on unprotected areas and the hazard of erosion is moderate."

"cH2O","2e2","In normal years these soils have a seasonal high water table at a depth of between 36 and 48 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days is the water table above the normal seasonal high water table depth."

"dCUL","2e2","These soils have moderate limitations for growing cultivated crops due to the hazard of erosion. The variety of cultivated crops is somewhat limited by wetness. Crops such as corn and peanuts are adapted where properly managed. Moderate erosion control measures are needed. Maximum yields require good seedbed preparation and nutrient management."

"eERO","2e2","Moderate erosion control measures are needed on these soils. These include a system of well-designed terraces with stabilized outlets and contour cultivation of row crops in alternate strips with cover crops. Crop rotations are needed that include cover crops at least half the time. Soil improving cover crops and all crop residues should be left on the soil. Conservation tillage or no-till best protect the soil."

"fIRR","2e2","Crops produced on these soils are not normally irrigated."

"hPAS","2e2","These soils are well suited to pastures and hay crops. Improved pasture plants such as clovers, hybrid bermudagrass, and improved bahiagrasses are well adapted. They produce well where they are properly managed. They require nutrient management and controlled grazing to maintain vigorous plants and a good ground cover."

"iWMG","2e2","Water table management is not normally practiced on these soils; however, tile drains are needed to maintain good drainage for such crops as tobacco."

2s1 Map Unit Ke

"aSOI","2s1","This map unit consists of nearly level and gently sloping, well drained soils on uplands. They have sandy surface and subsurface layers 20 to 40 inches thick, and moderately to moderately rapidly permeable loamy subsoil layers."

"bSAC","2s1","These soils have a well aerated root zone more than 72 inches thick. The available water capacity averages low to moderate in the root zone. Natural fertility is low and crop response to fertilization is moderate. Rainfall is rapidly absorbed with little runoff. The erosion hazard is slight."

"cH2O","2s1","In normal years these soils have no seasonal high water table within 75 inches."

"dCUL", "2s1", "These soils have moderate limitations for cultivated crops due to droughtiness. They can be cultivated safely with ordinary farming methods, but droughtiness and rapid leaching of plant nutrients limit the choice of crops and the potential yields of adapted crops. With good management such crops as corn, soybeans, peanuts, and tobacco can be grown. Yields can be maximized with nutrient management."

"eERO", "2s1", "Row crops should be planted on the contour in alternate strips with cover crops. Crop rotations should include cover crops at least half the time. These cover crops and all residues of other crops should be returned to the soil."

"fIRR", "2s1", "Crops produced on these soils are not normally irrigated and good yields can be achieved without irrigation but yields can be increased with irrigation. Irrigation of some high value crops such as tobacco is usually feasible where irrigation water is readily available."

"hPAS", "2s1", "These soils are well suited to pastures. Deep rooting plants such as hybrid bermudagrass and bahiagrass are well adapted. They produce well where nutrient management is practiced. Controlled grazing is important to maintain vigorous plants for maximum yields and good cover."

"iWMG", "2s1", "Water table management is not normally practiced on these soils."

2s3 Map Unit StA

"aSOI", "2s3", "This map unit consists of nearly level to gently sloping, moderately well drained soils on uplands. They have sandy surface and subsurface layers 20 to 40 inches thick, and moderately permeable loamy subsoil."

"bSAC", "2s3", "A well aerated root zone is limited by a seasonal high water table in wet seasons. The available water capacity averages low to moderate in the root zone. Natural fertility is low, but crops respond well to fertilization. The internal drainage rate under natural conditions is slow and response to artificial drainage is moderately slow."

"cH2O", "2s3", "In normal years these soils have a seasonal high water table at a depth of between 30 and 40 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days is the water table above the normal seasonal high water table depth."

"dCUL", "2s3", "These soils have moderate limitations for cultivated crops due to wetness and the hazard of erosion. With conservation practices that include erosion control and water table management, they are suited to a wide variety of cultivated crops. Nutrient management maximizes yields."

"eERO", "2s3", "Moderate erosion control measures that include crop rotations are needed. These measures should provide cover crops on the land at least half the time. Soil improving cover crops and all crop residues should be left on the land."

"hPAS", "2s3", "These soils are well suited to pastures. Grasses such as hybrid bermudagrass and bahiagrasses grow well when well managed. White clovers and other legumes are moderately adapted. Best yields require nutrient management and carefully controlled grazing to maintain plant vigor."

"iWMG", "2s3", "Ditches and/or tile drains, to remove excess surface water during rains, are needed to prevent crop damage for most crops produced on these soils. Some crops such as tobacco require more intensive water control measures. Tile drains can also be used to provide supplemental water through subirrigation."

2w2 Non-hydric phase of Map Unit Ar

"aSOI", "2w2", "This map unit consists of nearly level, somewhat poorly drained soils on low ridges between small streams, around depressions, and along narrow drainageways. They have sandy or loamy surface layers less than 20 inches thick, and moderately slowly or slowly permeable loamy or clayey subsoil layers. These soils are prime farmland."

"bSAC", "2w2", "A well aerated root zone is limited by a seasonal high water table in wet seasons. The available water capacity is moderate within the root zone. Natural fertility is low, but crops respond well to fertilization. The internal drainage rate is slow under natural conditions, but the soils respond readily to artificial drainage. Drainage is needed for highest yields of most crops."

"cH2O", "2w2", "In normal years these soils have a seasonal high water table at a depth of between 12 and 24 inches for 2 to 6 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "2w2", "These soils have moderate limitations for cultivated crops because of wetness. Corn and soybeans grows well where well managed. Cover crops should be rotated with row crops and crop rotations should include a cover crop at least half of the time. All crop residues should be left on the land. Other important management practices include good seedbed preparation and nutrient management."

"eERO", "2w2", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "2w2", "Crops produced on these soils are not normally irrigated."

"hPAS", "2w2", "These soils are well suited to pastures and hay crops. Clovers, hybrid bermudagrass, and bahiagrasses are well adapted. These plants need nutrient management for highest yields. Grazing should be controlled to maintain vigorous plants for best yields."

"iWMG", "2w2", "These soils need a water table management system designed to remove excess water rapidly after heavy rains. Carefully designed tile or open drains are needed. Tile drains can also be used to supply water to plants during periods of low rainfall by subirrigation."

2w4 Map Unit Le

"aSOI", "2w4", "This map unit consists of nearly level, moderately well drained and somewhat poorly drained soils on uplands. They have sandy surface and subsurface layers 20 to 40 inches thick and moderately permeable loamy subsoil layers."

"bSAC", "2w4", "A well aerated root zone is limited by a seasonal high water table in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is low, but the soils respond well to fertilization. Internal drainage rate is moderate, and the soils respond well to water table management. Water table management is needed for highest yields of some crops."

"cH2O", "2w4", "In normal years these soils have a seasonal high water table at a depth of between 15 and 30 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "2w4", "These soils have moderate limitations for cultivated crops due to wetness. In their natural condition the variety of adapted crops is limited to those that are tolerant of slight wetness. Crop rotations should include close growing crops, on the land at least half the time. All crop residues should be left on the land. Best yields require good seedbed preparation and nutrient management."

"eERO", "2w4", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "2w4", "Crops produced on these soils are not normally irrigated."

"hPAS", "2w4", "These soils are well suited to pastures and hay crops. Such grasses as hybrid bermudagrass and improved bahiagrasses grow well where well managed. Several legumes are also well adapted. These plants require nutrient management and controlled grazing for highest yields."

"iWMG","2w4","These soils need a water table management system designed to remove excess water rapidly after heavy rains. Carefully designed tile or open drains are needed. Tile drains can also be used to supply water to plants during periods of low rainfall by subirrigation."

3e1 Map Units FcB, OrC

"aSOI","3e1","This map unit consists of sloping and eroded phases on gently sloping, well drained soils on side slopes of uplands. They have sandy or loamy surface layers less than 20 inches thick, and moderately permeable, loamy or clayey subsoil layers. These soils are prime farmland."

"bSAC","3e1","These soils have a well aerated root zone more than 60 inches thick. The available water capacity is moderate to high in the root zone. They have moderate natural fertility and crops respond well to fertilization. Rainfall is readily absorbed and retained in the soil. Runoff after rains is rapid on unprotected areas and the erosion hazard is severe."

"ch2O","3e1","In normal years these soils have no seasonal high water table within 72 inches."

"dCUL","3e1","These soils have severe limitations for growing cultivated crops because of the hazard of erosion. A wide variety of cultivated crops are well adapted. Such crops as corn and soybeans grow well when properly managed. Maximum yields require good soil tilth and nutrient management."

"eERO","3e1","Intensive erosion control measures are needed. These measures include a system of well designed terraces with stabilized outlets and contour cultivation of row crops in alternate strips with cover crops. Crop rotations are needed that include cover crops at least two-thirds of the time. Soil improving cover crops and all crop residues should be left on the soil. Conservation tillage or no-till best protect the soil."

"fIRR","3e1","Crops produced on these soils are not normally irrigated."

"hPAS","3e1","These soils are well suited to pastures and hay crops. Pasture grasses such as hybrid bermudagrass and the improved bahiagrasses are well adapted. Clovers and other legumes are also well adapted. They grow well where properly managed and require nutrient management and controlled grazing to maintain vigorous plants for highest yields and good soil cover to reduce the hazard of erosion."

"iWMG","3e1","Water table management is not normally practiced on these soils."

3e2 Map Units DoC, TfC

"aSOI", "3e2", "This map unit consists of sloping, well drained to moderately well drained soils on low ridges of the uplands. They have sandy or loamy surface layers less than 20 inches thick, and moderately slowly to slowly permeable loamy subsoil layers."

"bSAC", "3e2", "A well aerated root zone is limited by compact subsoil layers at 30 to 50 inches below the surface. The available water capacity averages moderate to high in the root zone. Natural fertility is low and the crops respond only moderately to fertilization. Runoff during rains is rapid on unprotected areas and the hazard of erosion is severe."

"cH2O", "3e2", "In normal years these soils have a seasonal high water table at a depth of between 36 and 60 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "3e2", "These soils have severe limitations for cultivated crops due to the hazard of erosion. They are only moderately suited for most crops. The variety of adapted crops is somewhat limited by occasional wetness. Crops such as corn, soybeans, and peanuts are only moderately suited. Maximum yields require good soil tilth and nutrient management."

"eERO", "3e2", "Intensive erosion control measures are needed. Such measures include carefully designed terraces with stabilized outlets, contour cultivation of row crops grown in alternate strips with close growing crops, and crop rotations that include close growing crops on the land at least two-thirds of the time. Soil improving cover crops and all crop residues should be left on the land. Conservation tillage or no-till best protects the soil."

"fIRR", "3e2", "Crops produced on these soils are not normally irrigated."

"hPAS", "3e2", "The soils are only moderately suited to pastures. Hybrid bermudagrass and improved bahiagrasses are only moderately adapted. They produce only moderate yields where nutrient management is practiced. Controlled grazing is needed to maintain vigorous plants for maximum yields and good soil cover to control erosion."

"iWMG", "3e2", "Tile or open drains may be needed to intercept seepage water from higher areas."

3e3 Map Units An, GrB

"aSOI", "3e3", "This map unit consists of gently sloping, well drained or moderately well drained soils on side slopes of upland ridges. They have sandy surface layers less than 20 inches thick, and slowly permeable clayey or loamy subsoil layers."

"bSAC", "3e3", "The soils have a well aerated root zone 22 to 36 inches thick. It is limited by firm, slowly permeable subsoil. These soils have low natural fertility and crops have only fair response to fertilization. The available water capacity is moderate. Rainfall is readily absorbed into the soil, but slow permeability of the subsoil limits the amount that can be absorbed during any one heavy rain. Runoff from rain is rapid and the erosion hazard is severe."

"cH2O", "3e3", "In normal years these soils have no seasonal high water table within 36 inches."

"dCUL", "3e3", "These soils have severe limitations for cultivated crops because of the hazard of erosion. They are not well suited to most cultivated crops. They have only fair suitability for such crops as corn and soybeans. Maximum yields require good soil tilth and nutrient management."

"eERO", "3e3", "Intensive erosion control measures are needed. These measures should include well designed terraces with stabilized outlets. They should also include contour cultivation of row crops grown in alternate strips with close growing crops. Crop rotations should include close growing crops on the land at least two-thirds of the time. Soil building cover crops and all crop residues should be left on the land. Conservation tillage or no-till best protects the soil."

"fIRR", "3e3", "Crops produced on these soils are not normally irrigated."

"hPAS", "3e3", "The soils are well suited to pastures. Such plants as clovers, hybrid bermudagrass, and improved bahiagrasses are well adapted. They grow well where nutrient management is practiced. Controlled grazing is needed to maintain vigorous plants for maximum yields and good soil cover for erosion control."

"iWMG", "3e3", "Water table management is not normally practiced on these soils."

3s1 Map Unit LuC

"aSOI", "3s1", "This map unit consists of sloping, well drained soils on side slopes of the uplands. They have sandy surface and subsurface layers 20 to 40 inches thick, and moderately to moderately rapidly permeable loamy subsoil layers."

"bSAC", "3s1", "These soils have a well aerated root zone more than 72 inches thick. The available water capacity averages low to moderate in the root zone. Natural fertility is low and crop response to fertilization is moderate. Rainfall is rapidly absorbed on well vegetated areas. Runoff from unprotected areas is moderate and the hazard of erosion on these areas is moderate. The hazard of erosion is slight on slopes of less than 5 percent."

"cH2O", "3s1", "In normal years these soils have no seasonal high water table within 72 inches."

"dCUL", "3s1", "These soils have severe limitations for cultivated crops due to droughtiness and erosion. Droughtiness and rapid leaching of plant nutrients limit the choice of crops and the potential yields of adapted crops. The steepness of slopes further limits the suitability by making cultivation more difficult and increasing the hazard of erosion. Yields can be maximized with nutrient management."

"eERO", "3s1", "Intensive erosion control measures such as cultivating row crops the contour in alternate strips with cover crops are needed. Crop rotations should include cover crops at least two-thirds of the time. These cover crops and all residues of other crops should be returned to the soil."

"fIRR", "3s1", "Irrigation of some high value crops is usually feasible where irrigation water is readily available."

"hPAS", "3s1", "These soils are moderately well suited to pastures. Deep rooting plants such as hybrid bermudagrass and bahiagrass are well adapted. They produce well where nutrient management is practiced. Controlled grazing is important to maintain vigorous plants for maximum yields and to provide good cover to minimize erosion."

"iWMG", "3s1", "Water table management is not normally practiced on these soils."

3s2 Map Unit FuC

"aSOI", "3s2", "This map unit consists of nearly level to sloping, well drained soils on broad ridges and long side slopes. They have sandy surface and subsurface layers that are 20 to 40 inches thick, and moderately slow permeable to slowly permeable loamy and clayey subsoil layers."

"bSAC", "3s2", "These soils have a well aerated root zone that is limited at about 45 inches by slowly permeable subsoils or by wetness. The available water capacity averages low to moderate in the root zone. Natural fertility is low and crop response to fertilization is moderate. Rainfall is rapidly absorbed on well vegetated areas. Runoff from unprotected areas is moderate and the hazard of erosion on these areas is moderate."

"cH2O", "3s2", "In normal years these soils have a seasonal high water table at a depth of greater than 48 inches. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "3s2", "These soils have severe limitations for cultivated crops due to droughtiness and erosion. The hazard of erosion is moderate on that part of the map unit between 1 to 6 percent slopes which has been assigned to this capability class. Droughtiness and rapid leaching of plant nutrients limit the choice of crops and the potential yields of adapted crops. The steepness of slopes further limits the suitability by making cultivation more difficult and increasing the hazard of erosion. Yields can be maximized with nutrient management."

"eERO", "3s2", "Intensive erosion control measures such as cultivating row crops on the contour and in alternate strips with cover crops are needed. Crop rotations should include cover crops at least two-thirds of the time. These cover crops and all residues of other crops should be returned to the soil."

"fIRR", "3s2", "Irrigation of some high value crops such as tobacco is usually feasible where irrigation water is readily available."

"hPAS", "3s2", "These soils are moderately well suited to pastures. Hybrid bermudagrass and bahiagrasses are well adapted but yields are reduced during periodic droughts. They produce well where nutrient management is practiced. Controlled grazing is needed to maintain vigorous plants for maximum yields, minimize the effects of droughts and to maintain good ground cover to minimize erosion."

"iWMG", "3s2", "Water table management is not normally practiced on these soils."

3s4 Map Unit BoC

"aSOI", "3s4", "This map unit consists of nearly level to sloping, well drained soils on upland ridges. The soils have sandy surface and subsurface layers 40 to 80 inches thick and loamy subsoils that have rapid to moderate permeability."

"bSAC", "3s4", "These soils have a well aerated root zone that is thicker than 80 inches. The available water capacity averages very low to low in the root zone. Natural fertility is low to moderate and crop response to fertilization is moderate. Rainfall is rapidly absorbed and there is little runoff. The hazard of erosion is slight on slopes of less than 5 percent. The hazard of erosion is moderate on that part of the map unit between 5 to 8 percent slopes which has been assigned to this capability class."

"cH2O", "3s4", "In normal years these soils do not have a seasonal high water table within 72 inches, although a water table may perch above the subsoil for brief periods during periods of high rainfall."

"dCUL", "3s4", "These soils have severe limitations to cultivated crops. Droughtiness and rapid leaching of plant nutrients reduce the number of well adapted crops and the potential yields of plants that are adapted. The control of erosion is also a management concern on slopes above 5 percent. Nutrient management maximizes yields."

"eERO", "3s4", "Moderate erosion control measures are needed such as cultivating row crops on the contour and in strips alternating with close growing, soil building crops. Crop rotations should include close growing, soil improving crops on the land at least two-thirds of the time. Soil improving cover crops and all crop residues should be left on the land."

"fIRR","3s4","Good yields of cultivated crops require irrigation. However, irrigation is feasible for only a few high value crops and only where irrigation water is readily available."

"hPAS","3s4","These soils are well suited to pastures and hay crops. Deep rooting hybrid bermudagrass and bahiagrasses grow well where nutrient management is practiced. These soils require light and frequent fertilizing and carefully controlled grazing to maintain vigorous plants. Production is occasionally reduced by extended droughts."

"iWMG","3s4","Water table management is not normally practiced on these soils."

3s5 Map Unit Ch

"aSOI","3s5","This map unit consists of nearly level and gently sloping, somewhat poorly drained to moderately well drained soils on low ridges. They have sandy layers that are rapidly permeable to depths of more than 80 inches."

"bSAC","3s5","The root zone of these soils is limited by a seasonal high water table in wet seasons as well as droughtiness. The available water capacity is low to very low in all layers. Natural fertility is low and crop response to fertilization is moderate to low. Rainfall is rapidly absorbed and there is little runoff. The hazard of erosion is slight."

"cH2O","3s5","In normal years these soils have a seasonal high water table at a depth of between 18 and 40 inches for 2 to 6 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL","3s5","These soils have severe limitations for cultivated crops. Droughtiness and rapid leaching of plant nutrients limit the choice of plants and reduces potential yields of adapted crops. Soil management should include row crops on the contour in alternate strips with close growing crops. Crop rotations should include close growing crops on the land at least two-thirds of the time. Nutrient management maximizes yields. Soil improving cover crops and all crop residues should be left on the land."

"eERO","3s5","Crops produced on these soils do not normally need special erosion control practices."

"fIRR","3s5","Irrigation of high value crops is usually feasible where irrigation water is readily available."

"hPAS","3s5","These soils are moderately well suited to pastures and hay. Plants such as hybrid bermudagrass and bahiagrasses are well adapted. These soils require nutrient management to maximize yields. Controlled grazing is needed to maintain vigorous plants for maximum yields."

"iWMG", "3s5", "Tile or other kinds of drains are needed for some crops that are damaged by high water table during the growing season. Tile drains can also be used for subirrigation during periods of low rainfall."

3s20 Map Unit TrC

"aSOI", "3s20", "This map unit consists of nearly level to sloping, well drained soils on upland ridges. They have sandy surface and subsurface layers that are 40 to 80 inches thick, and moderately permeable loamy subsoil layers."

"bSAC", "3s20", "These soils have a well aerated root zone that is not limited above a depth of about 72 inches. The available water capacity averages low to moderate in the root zone. Natural fertility is low and crop response to fertilization is moderate. Rainfall is rapidly absorbed on well vegetated areas. Runoff from unprotected areas is slight and the hazard of erosion on these areas is slight to moderate."

"cH2O", "3s20", "In normal years these soils do not have a seasonal high water table within a depth of 72 inches."

"dCUL", "3s20", "These soils have severe limitations for cultivated crops due to droughtiness. Droughtiness and the rapid leaching of plant nutrients limit the choice of crops and the potential yields of adapted crops. Erosion is an additional hazard on slopes above 5 percent. Yields can be maximized with nutrient management. Crop rotations should include cover crops at least two-thirds of the time. These cover crops and all residues of other crops should be returned to the soil."

"eERO", "3s20", "Moderate erosion control measures such as cultivating row crops on the contour and in alternate strips with cover crops are needed."

"fIRR", "3s20", "Irrigation of some high value crops is usually feasible where irrigation water is readily available."

"hPAS", "3s20", "These soils are moderately well suited to pastures. Hybrid bermudagrass and bahiagrasses are well adapted but yields are reduced during periodic droughts. They produce well where nutrient management is practiced. Controlled grazing is needed to maintain vigorous plants for maximum yields, minimize the effects of droughts and to maintain good ground cover to minimize erosion."

"iWMG", "3s20", "Water table management is not normally practiced on these soils."

3w4 Non-hydric phase of Map Unit Bb

"aSOI", "3w4", "This map unit consists of nearly level, poorly drained soils on flatwoods, hammocks, and other flat areas. They have sandy and loamy surface and subsurface layers less than 40 inches thick over moderately to moderately rapidly permeable loamy layers."

"bSAC", "3w4", "The root zone is limited by a seasonal high water table that comes to near the surface in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "3w4", "In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "3w4", "These soils have severe limitations for cultivated crops because of wetness. With a total water management system, these soils are suited to such crops as corn and soybeans. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. The cover crops and all other crop residue should be returned to the soil. Maximum yields require good soil tilth and nutrient management."

"eERO", "3w4", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "3w4", "Crops produced on these soils are not normally irrigated."

"hPAS", "3w4", "These soils are well suited to pastures and hay crops. Improved grasses such as improved bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "3w4", "A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

3w7 Map Unit Ab

"aSOI", "3w7", "This map unit consists of nearly level and gently sloping, somewhat poorly drained soils on low ridges within the flatwoods and broad flats of the uplands. They have rapidly permeable sandy layers to depths of 40 to 60 inches over moderately to moderately rapidly permeable subsoil."

"bSAC", "3w7", "The root zone of these soils is limited by a seasonal high water table in wet seasons and by droughtiness during periods of low rainfall. The available water capacity is low in the root zone. Natural fertility is low but the response to fertilizers is moderate. Rainfall is rapidly absorbed and there is little runoff. The hazard of erosion is moderate on that part of the map unit between 2 to 5 percent slopes which has been assigned to this capability class."

"cH2O", "3w7", "In normal years these soils have a seasonal high water table at a depth of between 15 and 30 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "3w7", "These soils have severe limitations for most cultivated crops due to wetness in wet seasons, droughtiness during periods of low rainfall, rapid leaching of plant nutrients and the hazard of erosion on slopes greater than 2 percent. These factors also limit the choice of plants and reduces potential yields of adapted crops. Maximum yields require proper seedbeds and nutrient management. Soil improving cover crops and all crop residues should be left on the ground. Erosion control measures are needed on that part of the map unit between 2 to 5 percent slopes which has been assigned to this capability class."

"eERO", "3w7", "Erosion control measures are needed on these soils on slopes above 2 percent. These include contour cultivation of row crops in alternate strips with cover crops. Crop rotations are needed that include cover crops at least two-thirds of the time. Soil improving cover crops and all crop residues should be left on the soil. Conservation tillage or no-till best protect the soil."

"fIRR", "3w7", "Irrigation of high value crops is usually feasible where irrigation water is readily available."

"hPAS", "3w7", "These soils are moderately suited to pastures. Hybrid bermudagrass and bahiagrasses are adapted. White clover and lespedezas are also adapted. These soils produce good yields where nutrient management is practiced. Controlled grazing is needed to maintain vigorous plants for maximum yields."

"iWMG", "3w7", "Tile, or other types of drains, are needed for some crops such as tobacco that are damaged by high water table during the growing season. Tiles can also be used as a source for subirrigation during periods of low rainfall."

4e1 Map Unit FcC

"aSOI", "4e1", "This map unit consists of eroded sloping, well drained soils on the side slopes of upland ridges. They have sandy or loamy surface layers less than 20 inches thick and moderately permeable loamy or clayey subsoil layers."

"bSAC", "4e1", "These soils have a well aerated root zone more than 60 inches thick. The available water capacity averages moderate to high in the root zone. They have moderate natural fertility and crops respond well to fertilization. Rainfall is readily absorbed and retained in the soils. Runoff from unprotected areas during rain is very rapid. The erosion hazard is very severe."

"cH2O", "4e1", "In normal years these soils do not have a seasonal high water table within 72 inches of the surface."

"dCUL", "4e1", "These soils have severe limitations for growing cultivated crops because of the hazard of erosion. A wide variety of cultivated crops are well adapted. Such crops as corn and soybeans grow well when properly managed. Maximum yields require good soil tilth and nutrient management."

"eERO", "4e1", "Intensive erosion control measures are needed. These measures include a system of well designed terraces with stabilized outlets and contour cultivation of row crops in alternate strips with cover crops. Crop rotations are needed that include cover crops at least two-thirds of the time. Soil improving cover crops and all crop residues should be left on the soil. Conservation tillage or no-till best protect the soil."

"fIRR", "4e1", "Crops produced on these soils are not normally Irrigated"

"hPAS", "4e1", "These soils are moderately well suited to improved pastures. Hybrid bermudagrass and improved bahiagrasses are well adapted. Nutrient management and controlled grazing are needed for best yields and to assure a complete vegetative cover to prevent severe erosion."

"iWMG", "4e1", "Water table management is not normally practiced on crops produced on these soils."

4e2 Map Unit Dt

"aSOI", "4e2", "This map unit consists of strongly sloping, well drained soils on ridges and side slopes of uplands. They have sandy or loamy surface layers less than 60 inches thick, and moderately slowly permeable loamy subsoil layers."

"bSAC", "4e2", "A well aerated root zone is limited by compact subsoil layers at 30 to 50 inches below the surface. The soils average moderate to high available water capacity within the root zone. Natural fertility is low but crops respond moderately to fertilization. Runoff during rains is very rapid on unprotected areas and the hazard of erosion is very severe."

"cH2O", "4e2", "In normal years these soils do not have a seasonal high water table within 72 inches of the surface."

"dCUL", "4e2", "These soils are poorly suited to row crops because slopes are too steep and the hazard of erosion is too great to be safely cultivated. Crops such as corn, soybeans, and peanuts are only moderately suited. The slopes are too steep to be effectively terraced and erosion control measures are limited to the use of vegetative cover. All crops grown on these soils require nutrient management for best yields."

"eERO", "4e2", "Intensive erosion control measures are needed. Such measures include contour cultivation of row crops with alternating strips of close growing crops and crop rotations that include close growing vegetation on the land at least three-fourths of the time. All crop residues should be left on the land."

"fIRR", "4e2", "Crops produced on these soils are not normally irrigated"

"hPAS", "4e2", "These soils are moderately suited to improved pastures. Hybrid bermudagrass and improved bahiagrasses are only moderately adapted. Nutrient management and controlled grazing are needed for best yields and to assure a complete vegetative cover to prevent severe erosion."

"iWMG", "4e2", "Water table management is not normally practiced on crops produced on these soils."

4e8 Map Unit GrC

"aSOI", "4e8", "This map unit consists of sloping, well drained soils on side slopes or low knolls and ridges of the upland. They have sandy or loamy surface layers less than 20 inches thick, and slowly permeable clayey subsoil layers."

"bSAC", "4e8", "These soils have a well aerated root zone restricted within 40 inches by loamy or clayey subsoils with slow permeability. The available water capacity is low to moderate in the root zone. The soils have low natural fertility and crop response to fertilizers is poor. Runoff from rain is very rapid on unprotected areas and the erosion hazard is very severe."

"cH2O", "4e8", "In normal years these soils do not have a seasonal high water table within 72 inches of the surface."

"dCUL", "4e8", "These eroded soils are poorly suited to row crops because of slope and because or the hazard of additional erosion is too great to be safely cultivated. Crops such as corn, soybeans, and peanuts are only fairly suited. The slopes are too short or steep to be effectively terraced and erosion control measures are limited to the use of vegetative cover. All crops grown on these soils require nutrient management for best yields."

"eERO", "4e8", "Intensive erosion control measures are needed. Such measures include contour cultivation of row crops with alternating strips of close growing crops and crop rotations that include close growing vegetation on the land at least three-fourths of the time. All crop residues should be left on the land."

"fIRR", "4e8", "Crops produced on these soils are not normally irrigated"

"hPAS", "4e8", "These soils are fairly suited to improved pastures. Hybrid bermudagrass and improved bahiagrasses are moderately adapted. Nutrient management and controlled grazing are needed for best yields and to assure a complete vegetative cover to prevent severe erosion."

"iWMG", "4e8", "Water table management is not normally practiced on crops produced on these soils."

4s7 Map Unit Ld

"aSOI", "4s7", "This map unit consists of nearly level and gently sloping, well drained to excessively drained soils on to broad ridges. These soils have very rapidly permeable sandy layers to depths of more than 80 inches."

"bSAC", "4s7", "The root zone of these soils well aerated to a depth of 80 inches or more. Root development is limited by droughtiness. The available water capacity is low to very low in the root zone. Natural fertility is low and crop response to fertilization is low to moderate. Rainfall is rapidly absorbed and there is little runoff. The hazard of erosion is slight.

"cH2O", "4s7", "In normal years these soils do not have a seasonal high water table within a depth of 80 inches."

"dCUL", "4s7", "These soils have very severe limitations for most cultivated crops due to droughtiness and the rapid leaching of plant nutrients. These factors also limit the choice of plants and reduces potential yields of adapted crops. Crop rotations should include close growing crops on the land at least two-thirds of the time. Irrigation and nutrient management are requirements for acceptable yields. Soil improving cover crops and all crop residues should be left on the ground."

"fIRR", "4s7", "Although irrigation is a requirement for acceptable yields, due to the low water holding capacity of these soils, irrigation of all crops except a high value crops is not usually feasible. Locating a reliable and economical source of irrigation water is another management concern."

"hPAS", "4s7", "These soils are moderately suited to pastures. Deep-rooting plants such as Hybrid bermudagrass and bahiagrasses are adapted but yields are restricted due to droughtiness. Nutrient management is a required practice. Controlled grazing is needed to maintain vigorous plants for maximum yields."

"iWMG", "4s7", "Water table management is not normally practiced on these soils."

4w4 Non-hydric phases of Map Unit Pa

"aSOI", "4w4", "This map unit consists of nearly level, poorly drained soils on long narrow bottoms, in drainageways, and in wide depressions. They have sandy surface and subsurface layers less than 20 inches thick over moderately to slowly permeable loamy and clayey layers."

"bSAC", "4w4", "The root zone is limited by a seasonal high water table that comes to near the surface in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"ch2O", "4w4", "In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "4w4", "These soils have severe limitations for cultivated crops because of wetness."

"eERO", "4w4", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "4w4", "Crops produced on these soils are not normally irrigated."

"hPAS", "4w4", "These soils are moderately well suited to pastures and hay crops. Improved grasses such as improved bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "4w4", "A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

4w7 Non-hydric phases of Map Unit Pm

"aSOI", "4w7", "This map unit consists of nearly level, poorly drained soils in depressed areas and drainageways. They have sandy surface and subsurface layers 20 to 60 inches thick over moderately to moderately rapid permeable loamy layers."

"bSAC", "4w7", "The root zone is limited by a seasonal high water table that comes to near the surface in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "4w7", "In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "4w7", "These soils have severe limitations for cultivated crops because of wetness. With a total water management system these soils are suited to such crops as corn and soybeans. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. The cover crops and all other crop residue should be returned to the soil. Maximum yields require good soil tilth and nutrient management."

"eERO", "4w7", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "4w7", "Crops produced on these soils are not normally irrigated."

"hPAS", "4w7", "These soils are well suited to pastures and hay crops. Improved grasses such as improved bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "4w7", "A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

4w23 Hydric phase of Map Unit Pa

"aSOI", "4w23", "This map unit consists of nearly level, poorly drained soils on low flatwoods, low hammocks, and sloughs. They have sandy surface and subsurface layers less than 20 inches thick over moderately to slowly permeable loamy and clayey layers."

"bSAC", "4w23", "The root zone is limited by a seasonal high water table that is at or slightly above the surface in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "4w23", "In normal years these soils have a seasonal high water table at a depth of 6 inches or less for 2 to 6 months. In other months the water table is usually below this depths. During periods of high rainfall the water table may be above the surface for periods of brief duration."

"dCUL", "4w23", "Cultivation of these hydric soils is not recommended. If cultivated, these soils have severe limitations because of wetness."

"eERO", "4w23" These hydric soils do not normally need special erosion control practices."

"fIRR", "4w23", "If cultivated, highest yields require irrigation during periods of low rainfall either subirrigated through a water table management system or by sprinklers."

"hPAS", "4w23", "These hydric soils are not suited to pasture or hay crops without an extensive water table management system."

"iWMG", "4w23", "If cropped, these hydric soils need a total water table management system to remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

4w26 Hydric phase of Map Unit Pm

"aSOI", "4w26", "This map unit consists of nearly level, poorly drained soils on low flatwoods, low hammocks, and sloughs. They have sandy surface and subsurface layers 40 to 80 inches thick over moderately to moderately rapidly permeable loamy layers."

"bSAC", "4w26", "The root zone is limited by a seasonal high water table that is at or slightly above the surface in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "4w26", "In normal years these soils have a seasonal high water table at a depth of 6 inches or less for 2 to 6 months. In other months the water table is usually below this depths. During periods of high rainfall the water table may be above the surface for periods of brief duration."

"dCUL", "4w26", "Cultivation of these hydric soils is not recommended. If cultivated, these soils have severe limitations because of wetness."

"eERO", "4w26", "Crops produced on these hydric soils do not normally need special erosion control practices."

"fIRR", "4w26", "If cultivated, highest yields require irrigation during periods of low rainfall either through subirrigation through a water table management system or by sprinklers."

"hPAS", "4w26", "These hydric soils are not suited to pasture or hay crops without an extensive water table management system."

"iWMG", "4w26", "If cropped, these hydric soils need a total water table management system to remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems will be needed to maintain the preferred water table depths. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

5w6 Hydric phases of Map Units Ar, Bb

"aSOI", "5w6", "This map unit consists of nearly level, very poorly drained and poorly drained soils on flood plains. They are saturated or flooded with water much of the time."

"bSAC", "5w6", "Wetness and flooding severely limits the use of the root zone of these soils for agronomic crops."

"cH2O", "5w6", "In normal years these hydric soils have a seasonal high water table within 6 inches of the surface for 2 to 6 months or more. In other months the water table is usually below these depths. These soils are also flooded commonly for long duration. Most often flooding occurs in the winter and spring, but it may occur during any wet season."

"dCUL", "5w6", "These hydric soils are not suited to cultivated crops without an extensive water table management system."

"eERO", "5w6", "Erosion is not a management concern on crops produced on these hydric soils."

"fIRR", "5w6", "If cultivated, highest yields require irrigation either subirrigated through the extensive water table management system or by sprinklers."

"hPAS", "5w6", "These hydric soils are not suited to pasture or hay crops without an extensive water table management system."

"iWMG", "5w6", "If these hydric soils are cultivated, an extensive water table management system is needed for crop and pasture production on these soils. It should remove excess water rapidly and provide a means of applying subirrigation. Dikes and a pumping systems are needed for flood control and tile drains and open ditches are needed to maintain the preferred water table depth. Rarely are drainage and flood protection economically feasible and environmentally sound."

6w3 Hydric phases of Map Unit Pg

"aSOI", "6w3", "This capability unit consists of nearly level, very poorly drained soils that occur in depressions. These soils are mineral soils."

"bSAC", "6w3", "The root zone is restricted by a water table that is at or above the surface during wet seasons. The internal drainage is slow and response to artificial drainage is poor. The available water capacity is medium. Permeability is rapid to moderately rapid in the surface layers and slow to very slow in the subsoils. Natural fertility is low to medium, and organic matter content is low."

"cH2O", "6w3", "In normal years these hydric soils have a seasonal high water table within 6 inches of the surface for 2 to 6 months or more. In other months the water table is usually below these depths. These soils are also ponded frequently for long duration with water approximately 2 feet above the surface. Most often ponding occurs in the winter and spring, but it may occur during any wet season."

"dCUL", "6w3", "These soils are not suited to cultivated crops without extensive water table and ponding control management systems. Wetness, restricted rooting zone, slow internal drainage, and difficulty in obtaining adequate drainage outlets severely limit their use for cultivated crops. Water table management systems are hard to establish and maintain."

"eERO", "6w3", "Erosion is not a management concern on crops produced on these hydric soils if they happen to be cultivated."

"fIRR", "6w3", "If cultivated, highest yields require irrigation either subirrigated through the extensive water table management system or by sprinklers."

"hPAS", "6w3", "These hydric soils are not suited to pasture or hay crops without an extensive water table management system."

"iWMG", "6w3", "Because of the slow internal movement of water, and the usual lack of good outlets in areas where these soils occur, good water table management systems are difficult to establish and maintain. These systems normally require an extensive system of canals and ditches. A diking and/or pumping system for control of ponding water is also needed."

ECOLOGICAL COMMUNITIES

kRNG - Rangeland (not developed, no significant application in the area served by this field office.)

IWLD - Wildlife

mWOD - Woodland

Longleaf Pine-Turkey Oak Hills - Map Units BoC, Ld, TrC

("IWLD", "04") "This ecological community is suited for deer and turkey, especially as escape cover. Many birds inhabit the area including warblers, towhees, flycatchers, scrub jays, and quail. Several varieties of native legumes furnish food (seeds) for the birds. Timber harvest and other disturbances increase wildlife food by increasing the amount and types of herbaceous plants and by sprout production."

("mWOD", "04") "This community has a moderately high potential for commercial production of pulp and timber. These soils create moderate equipment limitations and seedling mortality problems. Sand pine and longleaf pine are the commercial species suited to planting."

Mixed Hardwood And Pine - Map Units Ab, An, Ar, Ch, DoA, DoB, DoC, Dt, FcB, FcC, FuC, GrB, GrC, Ke, Le, LuC, Md, OrB, OrC, StA, TfB, TfC

("IWLD", "05") "This community offers very good habitat for deer, turkey, squirrel, and many songbirds. Hardwood mast (acorns, nuts, fruits, buds, berries) furnish a good source of wildlife food. Mature hardwoods and snags provide good nesting sites for birds. Habitat is good for raccoons, opossums, bobwhite quail and dove, fair for reptiles, and poor for most amphibians."

("mWOD","05") "This community has a high potential productivity for commercial wood production. There are no serious management problems. Slash pine and loblolly pine are the commercial species suited to planting."

Cypress Swamp - Map Unit Pg*

("IWLD","17") "This community is very important for wildlife refuge areas and as a turkey roosting area. It is well suited for waterfowl and wading birds. Aquatic animals may be found in large numbers. The permanent residents of cypress heads are relatively few, but much of the wildlife of the flatwoods is dependant on these ponds for breeding purposes."

("mWOD","17") "This ecological community is not generally recommended for woodland. Extensive drainage would be required, thereby destroying this community."

("IWLD","20") "This community host a large variety of wildlife. It is well suited for squirrel, deer, and birds such as chickadees, titmice, flycatchers, owls, towhee, turkey, vireos, warbler, cedar waxwing, woodpeckers and wren. The various species of hardwood vegetation provide good food and cover for these species."

("mWOD","20") "This community has a high potential productivity for commercial woodland production on areas with adequate surface drainage. There are severe equipment limitations and seedling mortality due to the poorly to very poorly drained soil conditions. Slash and loblolly pine are suitable for planting in areas with adequate surface drainage. Most areas are better suited to natural regeneration."

Swamp Hardwoods - Map Units Pa, Pg*, Pm*

("IWLD","21") "This community hosts a large variety of wildlife. It is especially well suited for waterfowl, reptiles, amphibians, and mammals. Animals found in this community must withstand the flooding which occurs periodically. Gray squirrel, mink, raccoon, and river otter are the most commonly found mammals. Many birds inhabit this area including chickadees, titmice, yellow-billed cuckoo, wood duck, limpkin, flycatchers, owls, turkey, woodcock, hooded warbler, cedar waxwing, woodpeckers, and wren. The various species of hardwood vegetation provide good food and cover for these species."

("mWOD","21") "This Swamp Hardwoods community is generally not used for commercial woodland production except for limited harvest of hardwoods. However, this community does have a high potential for commercial woodland production on areas with adequate surface drainage. There are severe equipment limitations and seedling mortality due to the poorly to very poorly drained soil conditions. Slash pine is suitable for planting in areas with adequate surface drainage."

Pitcher Plant Bogs - Map Unit Pm*

("IWLD","23") "This ecological community is one of the least productive for wildlife which is probably due to the low diversity of plant species and growth forms limiting food and cover. It provides fair habitat for white-tailed deer and bobwhite quail. It is also suited for raccoons, armadillos, and grass-country birds."

("mWOD","23") "This ecological community is not generally recommended for woodland."

URBAN USES

oURB - Urban Use Statement

Map Units Bb, Pa, Pg, and Pm

"AREA 1 oURB GROUP","A101","Soils in this group have severe limitations for urban uses. Seasonal flooding or ponding is the primary limiting factor. Additionally, other severely limiting factors probably will be present in these soils."

Map Units Ab, Ar, and Le

"AREA 1 oURB GROUP","A102","Soils in this group have severe limitations for most urban uses. A seasonal high water table saturating these soils at or near the surface is the primary limiting factor. Additionally, other severely limiting factors may be present in these soils."

Map Units An, FcB, FcC, GrB, and GrC

"AREA 1 oURB GROUP","A103","Soils in this group have moderate to severe limitations for most urban uses. Limitations resulting from the properties of clayey layers within these soils dominate this group. Additionally, other limiting factors may be present in these soils."

Map Units Ch, DoA, DoB, DoC, Dt, StA, TfB, and TfC

"AREA 1 oURB GROUP","A104","Soils in this group have moderate limitations for many urban uses. Soil properties related to texture and wetness primarily affect this group. Soils of this group may have severe limitations for a specific urban use."

Map Units BoC, FuC, Ke, Ld, LuC, Md, OrB, OrC, and TrC

"AREA 1 oURB GROUP","A105","Soils in this group have slight limitations for many urban uses. Soils of this group may have moderate or even severe limitations for a specific urban use. Soil properties related to texture, slope, or wetness may affect a specific urban use."

WATER QUALITY: PESTICIDE AND NUTRIENT MANAGEMENT

sWQ – Water Quality Statement

tPES – Pesticide Management Statement

uNUT – Nutrient Management Statement

Map Units - FuC

"sWQ","01","These soils have a low potential for pesticide leaching to groundwater and a low potential for pesticide runoff to surface water. They have a medium or high potential for nitrogen leaching to groundwater and a low potential for phosphorous runoff to surface runoff."

"tPES","01","The Florida Pest Control Guide contains a listing of pesticides suitable for each type of pest and is available from the Cooperative Extension Service. Read and follow pesticide labels."

"uNUT","01","A soil test will be used as a guide to determine plant nutrient needs. In addition, a listing of nitrogen and phosphorous requirements by crop type is available from the Cooperative Extension Service. Nutrients should be added at the rate needed by the crop grown or according to the producer's goals, whichever is lower."

Map Units - BoC, Ld, LuC, TrC

"sWQ","02","These soils have a medium or high potential for pesticide leaching to the groundwater and a low potential for pesticide runoff from the field(s) to surface water. They have a medium or high potential for nitrogen leaching to the groundwater and a low potential for phosphorous runoff to surface runoff."

"tPES","02","The Florida Pest Control Guide from the Cooperative Extension Service contains a list of pesticides suited to each pest. This list also contains Relative Leaching Potential Index (RLPI) values. While any approved pesticide listed in the guide can be used, the applicator should consider for use pesticides with a larger RLPI value and Health Advisory Level (HAL or HALEQ) value. Read and follow pesticide labels."

"uNUT", "02", "A soil test will be used as a guide to determine plant nutrient needs. In addition, a listing of nitrogen and phosphorous requirements by crop type is available from the Cooperative Extension Service. Nutrients shall be added at the rate needed by the crop grown or according to the producer's goals, whichever is lower."

Map Units - Ab, Bb, Ch, Dt (Troup part), FcB, FcC, Md, OrB, OrC, Pa, Pg, StA

"sWQ", "03", "These soils have a medium or high potential for pesticide leaching to groundwater and a medium to high potential for pesticide runoff to surface water. They have a medium or high potential for nitrogen leaching to the groundwater and a medium or high potential for phosphorous runoff to surface runoff."

"tPES", "03", "The Florida Pest Control Guide from the Cooperative Extension Service contains a list of pesticides suited to each pest. This list also contains Relative Leaching Potential Index (RLPI) and Relative Runoff Potential Index (RRPI) values. While any approved pesticide listed in the guide can be used, the applicator should consider for use pesticides with a larger RLPI value, RRPI value, Health Advisory Level (HAL or HALEQ) value, and Aquatic Toxicity value. Read and follow pesticide labels."

"uNUT", "03", "A soil test will be used as a guide to determine plant nutrient needs. In addition, a listing of nitrogen and phosphorous requirements by crop type is available from the Cooperative Extension Service. Nutrients shall be added at the rate needed by the crop grown or according to the producer's goals, whichever is lower."

Map Units - An, Ar, DoA, DoB, DoC, Dt (Dothan-Lucy part), GrB, GrC, Ke, Le, Tfb, Tfc

"sWQ", "04", "These soils have a low potential for pesticide leaching to groundwater and a medium or high potential for pesticide runoff to surface water. They have a medium or high potential for nitrogen leaching to groundwater and a medium or high potential for phosphorous runoff to surface runoff."

"tPES", "04", "The Florida Pest Control Guide from the Cooperative Extension Service contains a listing of pesticides suited to each pest. This list also contains Relative Runoff Potential Index (RRPI) values. While any approved pesticide listed in the guide can be used, the applicator should consider for use pesticides with a larger RRPI value and a larger Aquatic Toxicity value. Read and follow pesticide labels."

"uNUT", "04", "A soil test will be used as a guide to determine plant nutrient needs. In addition, a listing of nitrogen and phosphorous requirements by crop type is available from the Cooperative Extension Service. Nutrients shall be added at the rate needed by the crop grown, or according to the producer's goals, whichever is lower."